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## (54) ARTIFICIAL KNEE JOINT

(57) Abstract:

PURPOSE: To obtain an excellent hemi-artificial knee joint by coating a metal made base structure of large mechanical strength respectively in its side, coming into contact with a bone, with a vital activator material layer and the sliding side with a wear resisting material layer.

CONSTITUTION: A base structure

11 of a joint member 1 is made by metal of Co-Cr alloy, titanium alloy, etc., forming a curved shape easily suited for a thighbone Db in its bone end part shape, and this base structure 11 coats its surface in a side, adapted to the thighbone Db, with a vital activator material layer 11a and the surface in a side, sliding as a joint, with a wear resistance material layer 11b. As a material forming the vital activator material layer 11a coating for firmly connecting the joint member 1 to the bone, hydroxyapatite, vital activator glass and β-TCP(tricalciumphosphate) or these combination may be used. While for the wear resistance material layer 11a coating the surface in the side sliding with a joint member 2 mounted to the shinbone, titanium nitride, titanium carbide, titanium carbide nitride, alumina, etc., are applied.